

## **Summary of Draft Regulations and Note to Reviewers**

### **314 CMR 4.00: Massachusetts Surface Water Quality Standards**

#### **(October 2019)**

The Massachusetts Department of Environmental Protection (“MassDEP” or the “Department”) is seeking to amend the Commonwealth’s Surface Water Quality Standards (“SWQS”) regulations (314 CMR 4.00) to update toxic pollutant criteria for protection of aquatic life and human health, which are needed to align the SWQS with updated guidance from the U.S. Environmental Protection Agency (EPA). The proposed amendments also designate additional cold water streams, update and clarify certain site-specific criteria and make the basin tables more clear and consistent.

### **Background**

The purpose of the SWQS regulations is to restore, enhance and protect the chemical, physical, and biological integrity of surface waters in Massachusetts. MassDEP adopted the SWQS under the authority of the state Clean Waters Act, M.G.L. c. 21, §§ 26-53, which directs MassDEP to take all action necessary to secure for the Commonwealth the benefits of the Federal Water Pollution Control Act, 33 U.S.C. § 1251 et seq. (“CWA”), and to adopt standards of minimum water quality applicable to waters of the Commonwealth. The SWQS were adopted to designate the most sensitive uses (*e.g.*, swimming, aquatic life, public water supply) for which surface waters are to be regulated, prescribe the minimum water quality criteria required to sustain those uses, and outline steps necessary to achieve designated uses and maintain high quality waters. The CWA and federal regulations require MassDEP to periodically review and update its surface water quality standards, and to adopt any new or updated criteria recommended by EPA. Effluent limits in surface water discharge permits issued by MassDEP and EPA’s National Pollutant Discharge Elimination Program (NPDES) are based on the SWQS. EPA must approve final revisions to state water quality standards for them to become effective. The SWQS regulations are comprised of a narrative section and accompanying tables and figures. Currently, the tables, organized by river basin and coastal drainage area, set forth special designated classifications and qualifiers for surface waters or segments of surface waters, and list any site-specific criteria for surface waters or segments necessary to sustain those uses. The SWQS were last revised in 2013. MassDEP proposes revisions as described below.

### **Summary of Proposed Revisions**

#### **1. Toxic Pollutant Criteria**

CWA Section 303(c)(2)(B) requires states to adopt ambient water quality criteria (AWQC) for all toxic pollutants for which criteria have been published by EPA, where these toxics could reasonably be expected to interfere with the designated uses of the surface water. In 2006, MassDEP incorporated by reference EPA’s 2002 recommended toxic pollutant criteria, but EPA has since asked MassDEP to incorporate these criteria directly. MassDEP now proposes to adopt all of the current federal toxic pollutant criteria in the form of an additional table, with the exception of selenium. For selenium,

MassDEP is proposing to continue using the 1999 federal criteria because the 2016 criteria update needs further review.

**Generally Applicable Aquatic Life Criteria.** Most criteria in the additional table are presented as absolute values; however, some criteria will use model- or equation-based formulas. To calculate freshwater criteria for copper, MassDEP is retaining the hardness-dependent equations as the default method to calculate copper criteria, while allowing for use of the 2007 EPA Biotic Ligand Model (BLM) if data are available. For aluminum, MassDEP is proposing to adopt EPA's Multiple Linear Regression (MLR) model that incorporates local data in the development of criteria. Permit holders will have the option of using default watershed criteria for aluminum or collecting local data to derive criteria. If the proposed revisions are approved by EPA, and data are available to calculate either the copper BLM or aluminum MLR criteria for a given location, these criteria would supersede defaults.

**Generally Applicable Human Health Criteria.** The proposed regulations include criteria updates to 100 pollutants, as well as new criteria for 11 pollutants. For recreational waters, MassDEP proposes updates consistent with EPA's 2012 guidance on bacteria criteria for the protection of human health in waters designated for primary contact recreation. The criteria for Massachusetts Department of Public Health (MDPH) beach closure decisions, determined in accordance with MDPH regulation, 105 CMR 445.031, will remain unchanged. Adoption of EPA's updated criteria will ensure that MDPH continues to receive federal Beaches Environmental Assessment and Coastal Health Act grants.

## **2. Cold Water Stream Designations**

To better align the SWQS with Massachusetts Division of Fisheries and Wildlife's (MassWildlife) designation of Cold Water Fisheries Resources (CFR), and to improve protection of these waters, MassDEP is proposing to add 153 cold water stream designations to the basin and coastal drainage areas. These streams are already identified as "cold water fishery resources" under MassWildlife's regulations.

## **3. Updates to Site-Specific Criteria for Copper, Zinc and Nitrogen**

In 2013, MassDEP adopted site-specific copper criteria for 15 surface water segments and site-specific zinc criteria for a single segment. These copper criteria were never approved by EPA, and therefore were never federally recognized. MassDEP is proposing to remove all 15 site-specific copper criteria and to revise the zinc site-specific criteria in accordance with EPA's recommendations.

The proposed revisions also update the nitrogen site-specific criteria for segments within the Cape Cod drainage area in accordance with final Massachusetts Estuaries Project (MEP) Total Maximum Daily Load (TMDL) reports. The co-ordinates of the sentinel locations were added, along with the criteria that apply.

#### 4. Other Updates to the Tables and Figures

MassDEP proposes to add certain definitions as footnotes to the tables, modify the structure of the tables, and make corrections and other updates. These changes increase the clarity and usability of the regulations, and they are necessary to make the regulations consistent with EPA guidance.

##### **Note to Reviewers on Other State Water Quality Programs**

MassDEP considers the Surface Water Quality Standards when issuing state discharge and dredge and fill permits, and when issuing CWA Section 401 water quality certifications for projects subject to federal licenses and permits, including NPDES, Federal Energy Regulatory Commission (FERC) hydropower and pipeline projects, and dredging projects subject to the jurisdiction of the Army Corps of Engineers. MassDEP also considers regulations promulgated by other state water resource agencies under their respective statutory authorities, such as the Massachusetts Division of Fisheries and Wildlife and the Massachusetts Office of Coastal Zone Management when issuing 401 certifications.

The Department is interested in receiving public comments on whether to include language describing its longstanding practice with regard to 401 water quality certification by referencing applicable state programs and the relationship between the Surface Water Quality Standards and these other state regulatory programs. This approach is being considered given recently proposed revisions to the federal 401 Water Quality Certification regulations proposed by the US EPA. The proposed revisions to the federal 401 regulations have been proposed in accordance with Executive Order 13868, *Promoting Energy Infrastructure and Economic Growth*. The Department is interested in receiving public comments on whether to include additional language in the background or general provisions section of the Surface Water Quality Standards describing MassDEP's current practices of considering related state regulations when issuing Water Quality Certifications to ensure compliance with not only the Massachusetts Surface Water Quality Standards but also other appropriate requirements of state law.